



## General

### Guideline Title

Behavioral counseling interventions to prevent sexually transmitted infections: U.S. Preventive Services Task Force recommendation statement.

### Bibliographic Source(s)

U.S. Preventive Services Task Force. Behavioral counseling interventions to prevent sexually transmitted infections: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med.* 2014 Dec 16;161(12):894-901. [49 references] [PubMed](#)

### Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: U.S. Preventive Services Task Force. Behavioral counseling to prevent sexually transmitted infections: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med.* 2008 Oct 7;149(7):491-496, W95. [11 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

## Recommendations

### Major Recommendations

The U.S. Preventive Services Task Force (USPSTF) grades its recommendations (A, B, C, D, or I) and identifies the levels of certainty regarding net benefit (High, Moderate, and Low). The definitions of these grades can be found at the end of the "Major Recommendations" field.

#### Summary of Recommendation and Evidence

The USPSTF recommends intensive behavioral counseling for all sexually active adolescents and for adults who are at increased risk for sexually transmitted infections (STIs). (B recommendation) See the "Clinical Considerations" section below for a description of high-risk populations.

#### Clinical Considerations

##### Patient Population under Consideration

This recommendation applies to all sexually active adolescents and to adults who are at increased risk for acquiring or transmitting STIs.

##### Assessment of Risk

All sexually active adolescents are at increased risk for STIs and should be counseled. Other risk groups that have been included in counseling studies are adults with current STIs or other infections within the past year, adults who have multiple sex partners, and adults who do not consistently use condoms.

Clinicians should be aware of populations with a particularly high prevalence of STIs. African Americans have the highest STI prevalence of any racial/ethnic group, and prevalence is higher in American Indians, Alaska Natives, and Latinos than in white persons. Increased STI prevalence rates are also found in men who have sex with men (MSM), persons with low incomes living in urban settings, current or former inmates, military recruits, persons who exchange sex for money or drugs, persons with mental illness or a disability, current or former intravenous drug users, persons with a history of sexual abuse, and patients at public STI clinics.

### Behavioral Counseling Interventions

Behavioral counseling interventions can reduce a person's likelihood of acquiring an STI. Interventions ranging in intensity from 30 minutes to 2 or more hours of contact time are beneficial. Evidence of benefit increases with intervention intensity. High-intensity counseling interventions (defined in the review as contact time of  $\geq 2$  hours) were the most effective, moderate-intensity interventions (defined as 30 to 120 minutes) were less consistently beneficial, and low-intensity interventions (defined as  $< 30$  minutes) were the least effective. Interventions can be delivered by primary care clinicians or through referral to trained behavioral counselors.

Most successful approaches provided basic information about STIs and STI transmission; assessed the person's risk for transmission; and provided training in pertinent skills, such as condom use, communication about safe sex, problem solving, and goal setting. Many successful interventions used a targeted approach to the age, sex, and ethnicity of the participants and also aimed to increase motivation or commitment to safe sex practices. Intervention methods included face-to-face counseling, videos, written materials, and telephone support. The USPSTF did not find enough evidence to determine whether the following intervention characteristics were related independently to effectiveness: degree of cultural tailoring, group versus individual format, condom negotiation or other communication as an intervention component, counselor characteristics, setting, or type of control group.

### Other Approaches to Prevention

The USPSTF has issued several recommendations related to screening for STIs, including chlamydia and gonorrhea, hepatitis B, genital herpes, HIV, and syphilis. These recommendations can be found at [www.uspreventiveservicestaskforce.org](http://www.uspreventiveservicestaskforce.org) [redacted].

### Useful Resources

The Centers for Disease Control and Prevention (CDC) provides information about STI prevention, testing, and resources at [www.cdc.gov/std/prevention/default.htm](http://www.cdc.gov/std/prevention/default.htm) [redacted]. It recommends that health care providers inform patients on how to reduce their risk for STI transmission, including abstinence, correct and consistent condom use, and limiting the number of sex partners. The CDC also maintains an inventory of efficacious interventions in the "Compendium of Evidence-Based HIV Behavioral Interventions" (available at [www.cdc.gov/hiv/prevention/research/compendium](http://www.cdc.gov/hiv/prevention/research/compendium) [redacted]).

The Community Preventive Services Task Force has issued several recommendations on the prevention of human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS), other STIs, and teen pregnancy. The Community Guide discusses interventions that have been effective in school settings and for MSM (available at [www.thecommunityguide.org/hiv/index.html](http://www.thecommunityguide.org/hiv/index.html) [redacted]).

The CDC Advisory Committee on Immunization Practices has issued recommendations on the control of vaccine-preventable diseases, including hepatitis B and human papillomavirus (available at [www.cdc.gov/vaccines/hcp/acip-recs/index.html](http://www.cdc.gov/vaccines/hcp/acip-recs/index.html) [redacted]).

The National Coalition of Sexually Transmitted Disease Directors and the National Alliance of State and Territorial AIDS Directors developed optimal care checklists for health providers of MSM (available at [www.ncsddc.org/publications/optimal-care-checklists-providers-msm-patients](http://www.ncsddc.org/publications/optimal-care-checklists-providers-msm-patients) [redacted]).

### Definitions:

What the U.S. Preventive Services Task Force (USPSTF) Grades Mean and Suggestions for Practice

Grade	Grade Definitions	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer/provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer/provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and	Offer/provide this service for selected patients depending on individual circumstances.

Grade	Grade Definitions	Suggestions for Practice
	patient preferences. There is at least moderate certainty that the net benefit is small.	
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality or conflicting, and the balance of benefits and harms cannot be determined.	Read the "Clinical Considerations" section of USPSTF Recommendation Statement (see the "Major Recommendations" field). If offered, patients should understand the uncertainty about the balance of benefits and harms.

#### USPSTF Levels of Certainty Regarding Net Benefit

Definition: The U.S. Preventive Services Task Force defines *certainty* as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	<p>The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by factors such as:</p> <ul style="list-style-type: none"> <li>• The number, size, or quality of individual studies</li> <li>• Inconsistency of findings across individual studies</li> <li>• Limited generalizability of findings to routine primary care practice</li> <li>• Lack of coherence in the chain of evidence</li> </ul> <p>As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.</p>
Low	<p>The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of:</p> <ul style="list-style-type: none"> <li>• The limited number or size of studies</li> <li>• Important flaws in study design or methods</li> <li>• Inconsistency of findings across individual studies</li> <li>• Gaps in the chain of evidence</li> <li>• Findings not generalizable to routine primary care practice</li> <li>• A lack of information on important health outcomes</li> </ul> <p>More information may allow an estimation of effects on health outcomes.</p>

#### Clinical Algorithm(s)

None provided

#### Scope

#### Disease/Condition(s)

Sexually transmitted infections (STIs)

## Guideline Category

Counseling

Prevention

Risk Assessment

## Clinical Specialty

Family Practice

Infectious Diseases

Internal Medicine

Obstetrics and Gynecology

Pediatrics

Preventive Medicine

## Intended Users

Advanced Practice Nurses

Allied Health Personnel

Health Care Providers

Nurses

Physician Assistants

Physicians

Public Health Departments

## Guideline Objective(s)

To summarize the current U.S. Preventive Services Task Force (USPSTF) recommendations and supporting scientific evidence on behavioral counseling interventions to prevent sexually transmitted infections (STIs)

## Target Population

All sexually active adolescents and adults (including pregnant women) who are at increased risk for acquiring or transmitting sexually transmitted infections (STIs)

## Interventions and Practices Considered

Intensive behavioral counseling

## Major Outcomes Considered

- Key Question 1: Is there direct evidence that behavioral counseling interventions to reduce risky sexual behaviors and increase protective sexual behaviors reduce sexually transmitted infection (STI) incidence and/or related morbidity and mortality?

- a. Are there populations or intervention characteristics that influence the effectiveness of the interventions?
- Key Question 2: Do behavioral counseling interventions to prevent STIs reduce risky sexual behavior or increase protective sexual behavior?
  - a. Are there populations or intervention characteristics that influence the effectiveness of the interventions?
- Key Question 3: Are there other positive outcomes beside STI incidence and changes in risky or protective sexual behavior from behavioral counseling interventions to prevent STIs?
- Key Question 4: What adverse effects are associated with behavioral counseling interventions to prevent STIs in primary care?

## Methodology

### Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

### Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the Kaiser Permanente Research Affiliates Evidence-based Practice Center (EPC) for the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion Documents" field).

Data Sources and Searches

To identify the cumulative body of literature, the reviewers examined all studies included in the previous USPSTF review and searched MEDLINE, PubMed, Cochrane Central Register of Controlled Trials, and CINAHL from 1 January 2007 through 4 November 2013 to identify relevant articles published since the previous review. They also searched the bibliographies of relevant reviews and Web sites of governmental agencies and professional organizations, and also consulted with outside experts. Between 4 November 2013 and this publication, they actively monitored published literature for potentially important new trials directly relevant to the key questions in this systematic review; none were located.

Study Selection

Two investigators independently reviewed abstracts and relevant full-text articles against prespecified inclusion criteria. They included trials evaluating counseling interventions targeting risky sexual behaviors to prevent sexually transmitted infections (STIs) in adults and adolescents. They excluded studies limited to persons with human immunodeficiency virus (HIV) (or populations with very high prevalence of HIV [ $>10\%$  in the study sample]), inmates and parolees, and persons in inpatient or residential settings because results limited to these groups may not be applicable to general primary care populations.

The investigators required that included interventions be conducted in, or participants be recruited from, primary care or other outpatient clinical settings, including reproductive health clinics, STI clinics, and mental health clinics. They included English-language trials conducted in "very high" human development countries according to the World Health Organization. They accepted the following comparators as control groups: usual care, attention control, minimal intervention ( $<15$  minutes of intervention contact), wait list, or no intervention. They included trials reporting 1 or more of the following at 3 months after baseline or later: patient health outcomes (STI incidence and morbidity or mortality related to STIs), sexual behavioral outcomes (for example, condom use or number of sexual partners), and harms of the intervention (for example, care avoidance).

### Number of Source Documents

- Key Question 1: 41 articles (23 studies)
- Key Question 2: 46 articles (25 studies)
- Key Question 3: 15 articles (9 studies)
- Key Question 4: 4 articles (3 studies)

# Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

## Rating Scheme for the Strength of the Evidence

Two investigators independently assessed the methodological quality of each study using U.S. Preventive Services Task Force (USPSTF) criteria. Studies were rated as good, fair, or poor quality. See the "Description of the Methods Used to Analyze the Evidence" field for further information.

## Methods Used to Analyze the Evidence

Meta-Analysis of Randomized Controlled Trials

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

## Description of the Methods Used to Analyze the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the Kaiser Permanente Research Affiliates Evidence-based Practice Center (EPC) for the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion Documents" field).

Data Extraction and Quality Assessment

Two investigators independently assessed the methodological quality of each study using USPSTF criteria. Studies were rated as good, fair, or poor quality. Good quality studies had adequate randomization procedures, allocation concealment, blinding of outcome assessors, reliable outcome measures (for example, at least standard laboratory procedures or efforts to minimize demand characteristics for self-reported outcomes), similar groups at baseline and follow-up, low attrition, acceptable statistical methods, and adequate adherence to the intervention. Fair quality trials met some but not all of these criteria. Poor quality studies had a serious flaw (for example, attrition >40%, differential attrition >20% between groups, or substantial baseline differences between groups) or multiple important limitations that would invalidate the study findings. They excluded all poor-quality studies. They resolved disagreements through discussion and, if necessary, consultation with a third investigator. One investigator abstracted data from all included studies into a standard evidence table. A second investigator checked the data for accuracy.

Data Synthesis and Analysis

The investigators created summary tables for each key question that included trial characteristics and summaries of results and qualitatively examined the range of results and potential associations with effect size. They stratified their analyses on the basis of age (adolescents vs. adults, including age-based subgroup analyses when reported) and estimated intervention intensity: high (>2 hours of intervention contact), moderate (0.5 to 2 hours of intervention contact), and low (brief single session or <0.5 hour of intervention contact). These cut points were selected to correspond with a typical, single brief session that would be feasible in a primary care office (low intensity); a longer single session or 2 to 3 brief sessions that may be feasible in selected primary care settings (medium intensity); and what would probably require multiple nonbrief sessions, usually requiring specialized and trained staff that could be referred from primary care (high intensity). They categorized populations on the basis of sexually transmitted infection (STI) "risk." "Low/mix" referred to a mix of sexually active and pre-sexually active participants (for adolescents only). "General" referred to sexually active adults with no further risk factors and not in a setting with increased risk (for adults only). "Increased" referred to participants with increased risk based on sociodemographics (sexually active teenagers, low-income inner-city residents, racial/ethnic subgroup with higher STI prevalence, men who have sex with men [MSM], and mentally ill or disabled persons), sexual history (for example, persons reporting high-risk behaviors), or setting (for example, STI clinics). The "prior STI" category was limited to persons with a current or recent STI at baseline. Additional potential moderators or mediators that were examined in exploratory qualitative analysis include characteristics of the interventions (degree of cultural tailoring, group vs. individual format, condom negotiation or other communication training as an intervention component, counselor characteristics, setting, type of control group, or number of sessions) and population (sex, sexual orientation, socioeconomic status, mental health issues, or history of abuse).

The investigators did random-effects meta-analyses for STI incidence using the DerSimonian-Laird method. They analyzed odds ratios because they were the most commonly reported outcome, which allowed including the largest number of studies in the meta-analysis. They ran sensitivity

analyses using the profile likelihood method because some of our pooled estimates were derived from a small number of trials. Results were very similar, and all statistically significant results remained statistically significant with the profile likelihood method. Results shown on forest plots are from the DerSimonian–Laird analyses. Statistical heterogeneity was assessed using the  $I^2$  statistic. They used Stata, version 11.2 (StataCorp), for all meta-analyses.

## Methods Used to Formulate the Recommendations

Balance Sheets

Expert Consensus

## Description of Methods Used to Formulate the Recommendations

The U.S. Preventive Services Task Force (USPSTF) systematically reviews the evidence concerning both the benefits and harms of widespread implementation of a preventive service. It then assesses the certainty of the evidence and the magnitude of the benefits and harms. On the basis of this assessment, the USPSTF assigns a letter grade to each preventive service signifying its recommendation about provision of the service (see Table below). An important, but often challenging, step is determining the balance between benefits and harms to estimate "net benefit" (that is, benefits minus harms).

Table 1. U.S. Preventive Services Task Force Recommendation Grid\*

Certainty of Net Benefit	Magnitude of Net Benefit			
	Substantial	Moderate	Small	Zero/Negative
High	A	B	C	D
Moderate	B	B	C	D
Low	Insufficient			

\*A, B, C, D, and I (*Insufficient*) represent the letter grades of recommendation or statement of insufficient evidence assigned by the USPSTF after assessing certainty and magnitude of net benefit of the service (see the "Rating Scheme for the Strength of the Recommendations" field).

The overarching question that the USPSTF seeks to answer for every preventive service is whether evidence suggests that provision of the service would improve health outcomes if implemented in a general primary care population. For screening topics, this standard could be met by a large randomized, controlled trial (RCT) in a representative asymptomatic population with follow-up of all members of both the group "invited for screening" and the group "not invited for screening."

Direct RCT evidence about screening is often unavailable, so the USPSTF considers indirect evidence. To guide its selection of indirect evidence, the USPSTF constructs a "chain of evidence" within an analytic framework. For each key question, the body of pertinent literature is critically appraised, focusing on the following 6 questions:

1. Do the studies have the appropriate research design to answer the key question(s)?
2. To what extent are the existing studies of high quality? (i.e., what is the internal validity?)
3. To what extent are the results of the studies generalizable to the general U.S. primary care population and situation? (i.e., what is the external validity?)
4. How many studies have been conducted that address the key question(s)? How large are the studies? (i.e., what is the precision of the evidence?)
5. How consistent are the results of the studies?
6. Are there additional factors that assist the USPSTF in drawing conclusions (e.g., presence or absence of dose–response effects, fit within a biologic model)?

The next step in the USPSTF process is to use the evidence from the key questions to assess whether there would be net benefit if the service were implemented. In 2001, the USPSTF published an article that documented its systematic processes of evidence evaluation and recommendation development. At that time, the USPSTF's overall assessment of evidence was described as good, fair, or poor. The USPSTF realized that this rating seemed to apply only to how well studies were conducted and did not fully capture all of the issues that go into an overall



assessment of the evidence about net benefit. To avoid confusion, the USPSTF has changed its terminology. Whereas individual study quality will continue to be characterized as good, fair, or poor, the term certainty will now be used to describe the USPSTF's assessment of the overall body of evidence about net benefit of a preventive service and the likelihood that the assessment is correct. Certainty will be determined by considering all 6 questions listed above; the judgment about certainty will be described as high, moderate, or low.

In making its assessment of certainty about net benefit, the evaluation of the evidence from each key question plays a primary role. It is important to note that the USPSTF makes recommendations for real-world medical practice in the United States and must determine to what extent the evidence for each key question—even evidence from screening RCTs or treatment RCTs—can be applied to the general primary care population. Frequently, studies are conducted in highly selected populations under special conditions. The USPSTF must consider differences between the general primary care population and the populations studied in RCTs and make judgments about the likelihood of observing the same effect in actual practice.

It is also important to note that one of the key questions in the analytic framework refers to the potential harms of the preventive service. The USPSTF considers the evidence about the benefits and harms of preventive services separately and equally. Data about harms are often obtained from observational studies because harms observed in RCTs may not be representative of those found in usual practice and because some harms are not completely measured and reported in RCTs.

Putting the body of evidence for all key questions together as a chain, the USPSTF assesses the certainty of net benefit of a preventive service by asking the 6 major questions listed above. The USPSTF would rate a body of convincing evidence about the benefits of a service that, for example, derives from several RCTs of screening in which the estimate of benefits can be generalized to the general primary care population as "high" certainty (see the "Rating Scheme for the Strength of the Recommendations" field). The USPSTF would rate a body of evidence that was not clearly applicable to general practice or has other defects in quality, research design, or consistency of studies as "moderate" certainty. Certainty is "low" when, for example, there are gaps in the evidence linking parts of the analytic framework, when evidence to determine the harms of treatment is unavailable, or when evidence about the benefits of treatment is insufficient. Table 4 in the methodology document listed below (see the "Availability of Companion Documents" field) summarizes the current terminology used by the USPSTF to describe the critical assessment of evidence at all 3 levels: individual studies, key questions, and overall certainty of net benefit of the preventive service.

Sawaya GF, Guirguis-Blake J, LeFevre M, Harris R, Petitti D; U.S. Preventive Services Task Force. Update on the methods of the U.S. Preventive Services Task Force: estimating certainty and magnitude of net benefit. *Ann Intern Med*. 2007;147(12):871-875. [5 references].

## Rating Scheme for the Strength of the Recommendations

What the U.S. Preventive Services Task Force (USPSTF) Grades Mean and Suggestions for Practice

Grade	Grade Definitions	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer/provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer/provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer/provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality or conflicting, and the balance of benefits and harms cannot be determined.	Read the "Clinical Considerations" section of USPSTF Recommendation Statement (see "Major Recommendations" field). If offered, patients should understand the uncertainty about the balance of benefits and harms.

### USPSTF Levels of Certainty Regarding Net Benefit

Definition: The U.S. Preventive Services Task Force defines *certainty* as "likelihood that the USPSTF assessment of the net benefit of a



preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	<p>The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by factors such as:</p> <ul style="list-style-type: none"> <li>• The number, size, or quality of individual studies</li> <li>• Inconsistency of findings across individual studies</li> <li>• Limited generalizability of findings to routine primary care practice</li> <li>• Lack of coherence in the chain of evidence</li> </ul> <p>As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.</p>
Low	<p>The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of:</p> <ul style="list-style-type: none"> <li>• The limited number or size of studies</li> <li>• Important flaws in study design or methods</li> <li>• Inconsistency of findings across individual studies</li> <li>• Gaps in the chain of evidence</li> <li>• Findings not generalizable to routine primary care practice</li> <li>• A lack of information on important health outcomes</li> </ul> <p>More information may allow an estimation of effects on health outcomes.</p>

## Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

## Method of Guideline Validation

Comparison with Guidelines from Other Groups

External Peer Review

Internal Peer Review

## Description of Method of Guideline Validation

Peer Review. Before the U.S. Preventive Services Task Force (USPSTF) makes its final determinations about recommendations on a given preventive service, the Evidence-based Practice Center and the Agency for Healthcare Research and Quality send a draft evidence review to 4 to 6 external experts and to Federal agencies and professional and disease-based health organizations with interests in the topic. The experts are asked to examine the review critically for accuracy and completeness and to respond to a series of specific questions about the document. The evidence review is also posted for public comment on the USPSTF Web site for 4 weeks. After assembling these external review and public comments and documenting the proposed response to key comments, the topic team presents this information to the USPSTF in memo form. In this way, the USPSTF can consider these comments before it votes on its recommendations about the service. Draft recommendation statements are then circulated for comment among reviewers representing professional societies, voluntary organizations, and Federal agencies, as well as posted on the USPSTF Web site for public comment. These comments are discussed before the final recommendations are confirmed.

Response to Public Comment. A draft version of this recommendation statement was posted for public comment on the USPSTF Web site from 29 April to 26 May 2014. In response to public comments, the USPSTF clarified that the recommendation applies to all sexually active

adolescents and to adults who are at increased risk for sexually transmitted infections (STIs). The USPSTF further clarified that persons diagnosed with an STI should be considered at increased risk for subsequent STIs. The revised recommendation provides more information about treatment factors other than intensity and expanded discussion of the limitations of the available evidence. In addition, the USPSTF offered more guidance for providers on implementation of this recommendation. The USPSTF also noted the need for more information from trials in both sexes and other broad-based interventions that could be implemented in or linked to primary care, as well as interventions to reduce risk for STIs in older Americans.

Comparison with Guidelines from Other Groups. Recommendations for screening from the following groups were discussed: the Centers for Disease Control and Prevention (CDC), the American Congress of Obstetricians and Gynecologists (ACOG), the Institute for Clinical Systems Improvement, the National Institute for Health and Care Excellence, and the American Academy of Family Physicians.

## Evidence Supporting the Recommendations

### Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is not specifically stated.

## Benefits/Harms of Implementing the Guideline Recommendations

### Potential Benefits

#### Benefits of Behavioral Counseling Interventions

The U.S. Preventive Services Task Force (USPSTF) found adequate evidence that intensive behavioral counseling interventions reduce the likelihood of sexually transmitted infections (STIs) in sexually active adolescents and in adults who are at increased risk. The USPSTF determined that this benefit is of moderate magnitude. The USPSTF also found adequate evidence that intensive interventions reduce risky sexual behaviors and increase the likelihood of condom use and other protective sexual practices.

### Potential Harms

#### Harms of Behavioral Counseling Interventions

The U.S. Preventive Services Task Force (USPSTF) found adequate evidence that the harms of behavioral interventions to reduce the likelihood of sexually transmitted infections (STIs) are small at most. The primary harm is the opportunity cost associated with intensive behavioral counseling interventions.

## Qualifying Statements

### Qualifying Statements

- The U.S. Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific preventive care services for patients without related signs or symptoms.
- It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.
- The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.
- Recommendations made by the USPSTF are independent of the U.S. government. They should not be construed as an official position of the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services.

# Implementation of the Guideline

## Description of Implementation Strategy

The experiences of the first and second U.S. Preventive Services Task Force (USPSTF), as well as that of other evidence-based guideline efforts, have highlighted the importance of identifying effective ways to implement clinical recommendations. Practice guidelines are relatively weak tools for changing clinical practice when used in isolation. To effect change, guidelines must be coupled with strategies to improve their acceptance and feasibility. Such strategies include enlisting the support of local opinion leaders, using reminder systems for clinicians and patients, adopting standing orders, and audit and feedback of information to clinicians about their compliance with recommended practice.

In the case of preventive services guidelines, implementation needs to go beyond traditional dissemination and promotion efforts to recognize the added patient and clinician barriers that affect preventive care. These include clinicians' ambivalence about whether preventive medicine is part of their job, the psychological and practical challenges that patients face in changing behaviors, lack of access to health care or of insurance coverage for preventive services for some patients, competing pressures within the context of shorter office visits, and the lack of organized systems in most practices to ensure the delivery of recommended preventive care.

Dissemination strategies have changed dramatically in this age of electronic information. While recognizing the continuing value of journals and other print formats for dissemination, the USPSTF will make all its products available through its [Web site](#) . The combination of electronic access and extensive material in the public domain should make it easier for a broad audience of users to access USPSTF materials and adapt them for their local needs. Online access to USPSTF products also opens up new possibilities for the appearance of the annual, pocket-size Guide to Clinical Preventive Services.

To be successful, approaches for implementing prevention have to be tailored to the local level and deal with the specific barriers at a given site, typically requiring the redesign of systems of care. Such a systems approach to prevention has had notable success in established staff-model health maintenance organizations, by addressing organization of care, emphasizing a philosophy of prevention, and altering the training and incentives for clinicians. Staff-model plans also benefit from integrated information systems that can track the use of needed services and generate automatic reminders aimed at patients and clinicians, some of the most consistently successful interventions. Information systems remain a major challenge for individual clinicians' offices, however, as well as for looser affiliations of practices in network-model managed care and independent practice associations, where data on patient visits, referrals, and test results are not always centralized.

## Implementation Tools

Foreign Language Translations

Mobile Device Resources

Patient Resources

Pocket Guide/Reference Cards

Staff Training/Competency Material

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

## Institute of Medicine (IOM) National Healthcare Quality Report Categories

### IOM Care Need

Staying Healthy

### IOM Domain

Effectiveness

Patient-centeredness

## Identifying Information and Availability

### Bibliographic Source(s)

U.S. Preventive Services Task Force. Behavioral counseling interventions to prevent sexually transmitted infections: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med.* 2014 Dec 16;161(12):894-901. [49 references] [PubMed](#)

### Adaptation

Not applicable: The guideline was not adapted from another source.

### Date Released

1996 (revised 2014 Dec 16)

### Guideline Developer(s)

U.S. Preventive Services Task Force - Independent Expert Panel

### Guideline Developer Comment

The U.S. Preventive Services Task Force (USPSTF) is a federally-appointed panel of independent experts. Conclusions of the USPSTF do not necessarily reflect policy of the U.S. Department of Health and Human Services or its agencies.

### Source(s) of Funding

The U.S. Preventive Services Task Force (USPSTF) is an independent, voluntary body. The U.S. Congress mandates that the Agency for Healthcare Research and Quality support the operations of the USPSTF.

### Guideline Committee

U.S. Preventive Services Task Force (USPSTF)

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*\*Members of the Task Force at the time this recommendation was finalized. For a list of current Task Force members, go to [www.uspreventiveservicestaskforce.org/Page/Name/our-members](http://www.uspreventiveservicestaskforce.org/Page/Name/our-members) .*

## Financial Disclosures/Conflicts of Interest

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*Disclosures:* Dr. Owens reports nonfinancial support for travel during the conduct of the study. Authors not named here have disclosed no conflicts of interest. Authors followed the policy regarding conflicts of interest described at

<http://www.uspreventiveservicestaskforce.org/Page/Name/methods-and-processes>.  Disclosures can also be viewed at <https://www.acponline.org/authors/icmje/ConflictOfInterestForms.do?msNum=M14-1965> .

## Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: U.S. Preventive Services Task Force. Behavioral counseling to prevent sexually transmitted infections: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med*. 2008 Oct 7;149(7):491-496, W95. [11 references]

This guideline meets NGC's 2013 (revised) inclusion criteria.

## Guideline Availability

Electronic copies: Available from the [Annals of Internal Medicine Web site](#) .

## Availability of Companion Documents

The following are available:

Evidence Reviews:

- O'Connor E, Lin JS, Burda BU, Henderson JT, Walsh ES, Whitlock EP. Behavioral sexual risk-reduction counseling in primary care to prevent sexually transmitted infections: a systematic review for the U.S. Preventive Services Task Force. *Ann Intern Med*. 2014 Dec 16;161(12):874-883.
- O'Connor E, Lin JS, Burda BU, Henderson JT, Walsh ES, Whitlock EP. Behavioral sexual risk reduction counseling in primary care to prevent sexually transmitted infections: An updated systematic evidence review for the U.S. Preventive Services Task Force. Evidence Synthesis No. 114. AHRQ Publication No. 13-05180-EF-1. Rockville (MD): Agency for Healthcare Research and Quality; 2014 Sep. 137 p.

Electronic copies: Available from the [U.S. Preventive Services Task Force \(USPSTF\) Web site](#) .

Background Articles:

- Barton MB et al. How to read the new recommendation statement: methods update from the U.S. Preventive Services Task Force. *Ann Intern Med* 2007;147:123-127.
- Guiguis-Blake J et al. Current processes of the U.S. Preventive Services Task Force: refining evidence-based recommendation development. *Ann Intern Med* 2007;147:117-122.
- Sawaya GF et al. Update on the methods of the U.S. Preventive Services Task Force: estimating certainty and magnitude of net benefit. *Ann Intern Med* 2007;147:871-875.

- Petitti DB et al. Update on the methods of the U.S. Preventive Services Task Force: insufficient evidence. *Ann Intern Med.* 2009;150:199-205.

Electronic copies: Available from [USPSTF Web site](#) .

The following are also available:

- Behavioral counseling interventions to prevent sexually transmitted infections. Clinical summary of U.S. Preventive Services Task Force recommendation. 2014. 1p. Electronic copies: Available from the [USPSTF Web site](#) .
- The guide to clinical preventive services, 2014. Recommendations of the U.S. Preventive Services Task Force. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2014. 144 p. Electronic copies: Available from the [AHRQ Web site](#) . See the related QualityTool summary on the [Health Care Innovations Exchange Web site](#) .
- A continuing medical education (CME) activity is available from the [Annals of Internal Medicine Web site](#) .

The [Electronic Preventive Services Selector](#)  (ePSS) is an application designed to provide primary care clinicians and health care teams timely decision support regarding appropriate screening, counseling, and preventive services for their patients. It is based on the current, evidence-based recommendations of the USPSTF and can be searched by specific patient characteristics, such as age, sex, and selected behavioral risk factors.

## Patient Resources

The following are available:

- Behavioral counseling interventions to prevent sexually transmitted infections. Understanding task force recommendations. Rockville (MD): U.S. Preventive Services Task Force. Consumer fact sheet. 2014 Sep. 4 p. Electronic copies: Available from the [U.S. Preventive Services Task Force \(USPSTF\) Web site](#) .
- Behavioral counseling interventions to prevent sexually transmitted infections: U.S. Preventive Services Task Force recommendation statement. Summaries for patients. *Ann Intern Med.* 2014 Dec 16;161(12):I-26. Electronic copies: Available from the [Annals of Internal Medicine Web site](#) .
- Women: stay healthy at any age. 2014 update. Rockville (MD): Agency for Healthcare Research and Quality. AHRQ Pub. No. 14-IP007-A. 2014 Mar. 5 p. Electronic copies: Available in [English](#)  and [Spanish](#)  from the Agency for Healthcare Research and Quality (AHRQ) Web site.
- Men: stay healthy at any age. 2014 update. Rockville (MD): Agency for Healthcare Research and Quality. AHRQ Pub. No. 14-IP006-A. 2014 Mar. 5 p. Electronic copies: Available in [English](#)  and [Spanish](#)  from the AHRQ Web site.
- Women: stay healthy at 50+. 2014 update. Rockville (MD): Agency for Healthcare Research and Quality. AHRQ Pub. No. 14-IP002-A. 2014 Mar. 5 p. Electronic copies: Available in [English](#)  and [Spanish](#)  from the AHRQ Web site.
- Men: stay healthy at 50+. 2014 update. Rockville (MD): Agency for Healthcare Research and Quality. AHRQ Pub. No. 14-IP009-A. 2014 Mar. 5 p. Electronic copies: Available in [English](#)  and [Spanish](#)  from the AHRQ Web site.

Print copies: Available in English and Spanish from the AHRQ Publications Clearinghouse. For more information, go to <http://www.ahrq.gov/research/publications/index.html>  or call 1-800-358-9295 (U.S. only).

Myhealthfinder is a tool that provides personalized recommendations for clinical preventive services specific to the user's age, gender, and pregnancy status. It features evidence-based recommendations from the USPSTF and is available at [www.healthfinder.gov](http://www.healthfinder.gov)

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Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

## NGC Status

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